

**Notice of Allowability**

Application No.

10/708,400

Examiner

Anatoly Vortman

Applicant(s)

OTSUKI ET AL.

Art Unit

2835

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to RCE filed on 07/21/06.
2. ☒ The allowed claim(s) is/are 1-12.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some\*    c) ☐ None    of the:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date 8/21/06
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413),  
Paper No./Mail Date 8/18/06
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_



Anatoly Vortman  
Primary Examiner  
AU 2835

### EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to Applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with **James W. Judge, Reg. No. 42,701 on August 8, 2006.**

The application has been amended as follows:

Claim 1, line 18 of the claim, following "group of" [the] has been deleted and -- several, but not all, adjacent-- has been inserted before "heat radiating fins".

Claim 10, line 19 of the claim, following "group of" [the] has been deleted and -- several, but not all, adjacent-- has been inserted before "heat radiating fins".

The following amendments not affecting the scope of the claims have been made without consultation with the attorney of record, in order to correct minor informalities:

Claim 1, line 17 of the claim, [the] has been replaced with --an-- before "envelope".

Claim 3, last line of the claim, [an] has been replaced with --the-- before "envelope".

Claim 8, line 2 of the claim [the arm portions is] has been replaced with --arm portions are--.

Claim 9, line 2 of the claim [the positioning portion is] has been replaced with --positioning portions are--.

Claim 10, line 18 of the claim, [the] has been replaced with --an-- before “envelope”.

2. The following is an examiner’s statement of reasons for allowance:

Allowability resides in the overall structure of the device as recited in independent claims 1 and 10, and at least in part, because:

Claim 1, as amended, recites: “an axial flow fan [...] at least one circumferentially partial engagement feature is formed along an envelope of the heat sink by distal-edge protrusions or recesses in a group of several, but not all adjacent heat radiating fins”; and,

Claim 10, as amended, recites: “an axial flow fan [...] a plurality of circumferentially partial engagement features is formed along an envelope of the heat sink by distal-edge protrusions or recesses in groups of several, but not all adjacent heat radiating fins”.

The aforementioned limitations in combination with all remaining limitations of claims 1 and 10, respectively, are believed to render the claims and all claims dependent therefrom patentable over the art of record. The aforementioned limitations clearly distinguish the claims over JP/2003-258473 (primary reference used in the rejection), which teaches (Fig. 1) a heat sink fan comprising: a circumferentially partial engagement feature (9a) formed along an envelope of the heat sink by distal-edge recesses in all adjacent heat radiating fins (21), not in a group(s) of several, but not all adjacent heat radiating fins as required by claims 1 and 10 of the instant application. The aforementioned distinction is a valuable inventive feature, which would allow for the fan housing to be locked in place in order to prevent rotation of said housing in a horizontal plane.

Further, Examiner has cited the following references pertinent to the present invention:

US 6879487, 6538888, 6515862, 6414848, 6386274, 6336499, 5597034, and 5579827 disclosed various cooling arrangements for heat generating electrical components comprising heat sinks and fans.

None of the references cited during prosecution of the instant application, either taken alone or in combination, is believed to render the present invention unpatentable as claimed.


3. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anatoly Vortman whose telephone number is 571-272-2047. The examiner can normally be reached on Monday-Friday, between 10:00 am and 6:30 pm..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ms. Lynn Feild can be reached on 571-272-2092. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AV

A handwritten signature in black ink, appearing to read 'A. Vortman', followed by a horizontal line extending to the right.

Anatoly Vortman  
Primary Examiner  
Art Unit 2835